

Solving Linear Systems by Graphing

Date: _____

Linear System of Equations - two linear relations or equations grouped together. "To solve" the system means to find the point of intersection of the two lines. To do this, we can graph the two lines on the same grid (or use a graphing calculator.)

EX: Is (6, 2) a solution to $x + y = 8$
 $2x - y = 10$?

EX: Find the point of intersection using the slope and y - intercept method.

$$y = x - 1$$
$$x + 2y = 4$$

EX: Find the point of intersection using the intercept method.

$$3x + 2y = 18$$
$$3x - 2y = 6$$

Possibilities

Two lines may meet at one point(one solution point), be parallel and not meet(no solution), or be the same line(infinite solutions).

EX: $y = -2x + 6$
 $2x + y = 2$

EX: $2x - 3y = 6$
 $4x - 6y = 12$